

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

MICHAEL OVERDICK ET AL

DE 010033

Serial No.

Group Art Unit

Filed: CONCURRENTLY

Ex.

Title: X-RAY DETECTOR HAVING A LARGE DYNAMIC RANGE

Commissioner for Patents  
Washington, D.C. 20231

#6/P. R. R. R. R. R.  
5/16/02  
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PRELIMINARY AMENDMENT

Sir:

Prior to calculation of the filing fee and examination, please amend the above-identified application as follows:

IN THE CLAIMS

Please cancel claim 9 and amend the following claims:

AI  
3. (amended) An X-ray detector as claimed in claim 1, characterized in that the data processing unit (11) is arranged in such a manner that it attaches more weight to the signals from the integrator output (9) than to the signals from the counter output (8) in the case of a high absorption rate of the X-ray quanta.

AI  
Concluded

4. (amended) An X-ray detector as claimed in claim 1, characterized in that the data processing unit (11) is arranged in such a manner that it determines the mean energy of the detected X-ray quanta from the signals from the counter output (8) and the signals from the integrator output (9).

5. (amended) An X-ray detector as claimed in claim 1, characterized in that the evaluation unit (10) includes an input amplifier (2) which preprocesses the charge signal presented by the conversion unit (1), notably amplifies it, and conducts the signal thus preprocessed to the counting channel (5) and to the integrator channel (7).

6. (amended) An X-ray detector as claimed in claim 1, characterized in that it includes a plurality of conversion units (1) which are arranged so as to be distributed in one plane, that is, preferably in the form of a matrix.

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#### REMARKS

The foregoing amendments to the claims were made solely to avoid filing the claims in the multiple dependent form so as to avoid the additional filing fee.

The claims were not amended in order to address issues of

patentability and Applicants respectfully reserve all rights they may have under the Doctrine of Equivalents. Applicants furthermore reserve their right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

Respectfully submitted,



By \_\_\_\_\_  
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APPENDIX

3. (amended) An X-ray detector as claimed in claim 1-~~or 2~~, characterized in that the data processing unit (11) is arranged in such a manner that it attaches more weight to the signals from the integrator output (9) than to the signals from the counter output (8) in the case of a high absorption rate of the X-ray quanta.

4. (amended) An X-ray detector as claimed in ~~at least one of the claims 1 to 3~~claim 1, characterized in that the data processing unit (11) is arranged in such a manner that it determines the mean energy of the detected X-ray quanta from the signals from the counter output (8) and the signals from the integrator output (9).

5. (amended) An X-ray detector as claimed in ~~at least one of the claims 1 to 4~~claim 1, characterized in that the evaluation unit (10) includes an input amplifier (2) which preprocesses the charge signal presented by the conversion unit (1), notably amplifies it, and conducts the signal thus preprocessed to the counting channel (5) and to the integrator channel (7).

6. (amended) An X-ray detector as claimed in ~~at least one of the claims 1 to 5~~claim 1, characterized in that it includes a plurality

of conversion units (1) which are arranged so as to be distributed in one plane, that is, preferably in the form of a matrix.